

1 MELAALCRWG LLLALLPPGA ASTQVCTGTD MKLRLPASPE THLDMLRHLY QGCQVQGNL LSFLODIQEV QGYVLIAHNQ VRQVPLQRLR
101 IVRGTQLFED NYALAVLDNG DPLNNTTPVT GASPGGLREL QLRSLTEILK GGVLIQRNPQ LCYQDTILWK DIFHKNNQLA LTLIDTNRSR ACHPCSPMCK
201 GSRGWGESSE DCQSLTRTVC AGGCARCKGP LPTDCCHEQC AAGCTGPKHS DCLACLHFNH SGICELHCPA LVTYNTDTFE SMPNPEGRYT FGASCVTACP
301 YNYLSTDVGS CTLVCPLHNQ EVTAEDGTQR CEKCSKPCAR VCYGLGMEHL REVRAVTSAN IQEFAGCKKI FGSIAFLPES FDGDPASNTA PLOPEQLQVF
401 ETLEETGYL YISAWPDSLP DLSVFQNLQV IRGRILHNGA YSLTLQGLGI SWLGLRSLRE LGSGLALIH NTHLCFVHTV PWDQLFRNPH QALLHTANRP
501 EDECVGEGLA CHQLCARGHC WPGPTQCVN CSQFLRGQEC VEECRVLQGL PREYVNAHRC LPCHPECPQPO NGSVTCFGPE ADQCACAHY KDPPFCVARC
601 PSGVKPDLSY MPIWKFPDEE GACQPCPINC THSCVDLDDK GCPAE (SEQ ID NO: 13)

FIG. 1A

| | | | |
|------|----|---------|----------------|
| 7C2 | aa | 22-53 | (31 RESIDUES) |
| 7F3 | aa | 22-53 | (31 RESIDUES) |
| 2C4 | aa | 22-584 | (562 RESIDUES) |
| 7D3 | aa | 22-584 | (562 RESIDUES) |
| 3E8 | aa | 512-625 | (113 RESIDUES) |
| 4D5 | aa | 529-625 | (96 RESIDUES) |
| 2H11 | aa | 529-645 | (116 RESIDUES) |
| 3H4 | aa | 541-599 | (58 RESIDUES) |

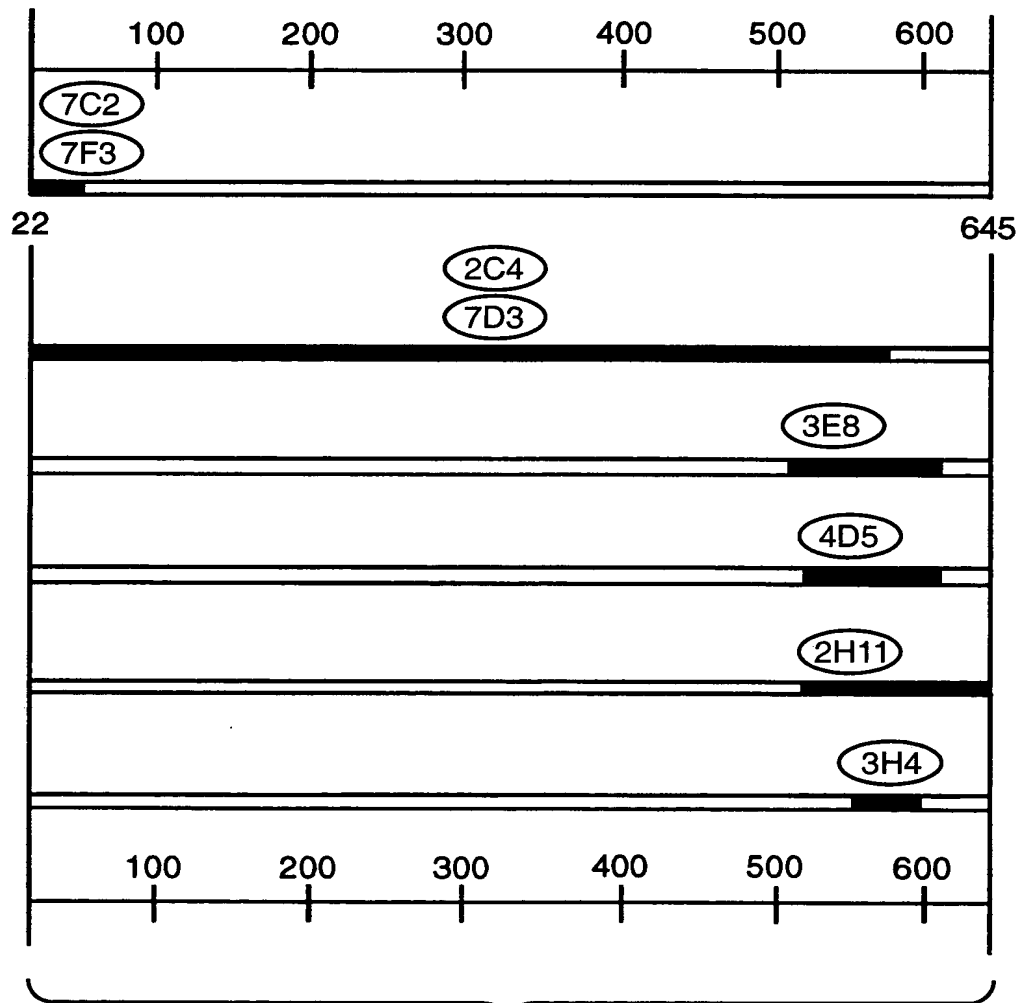


FIG. 1B

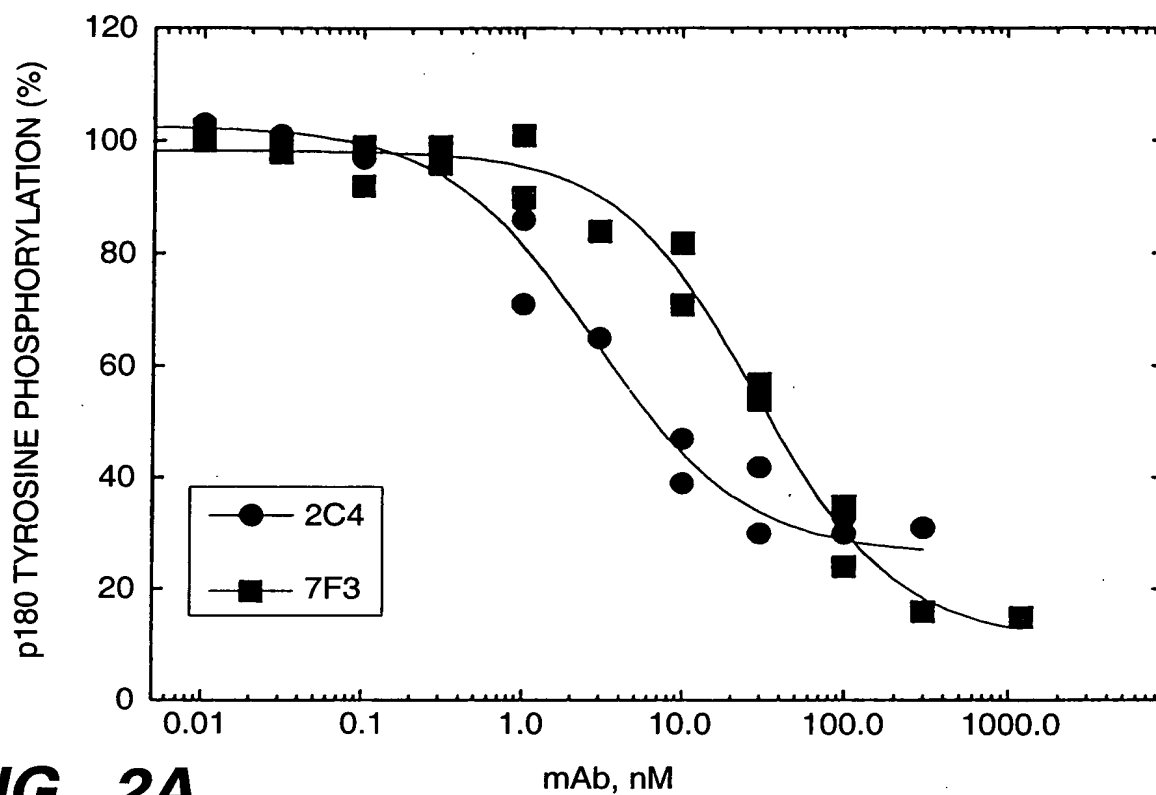


FIG. 2A

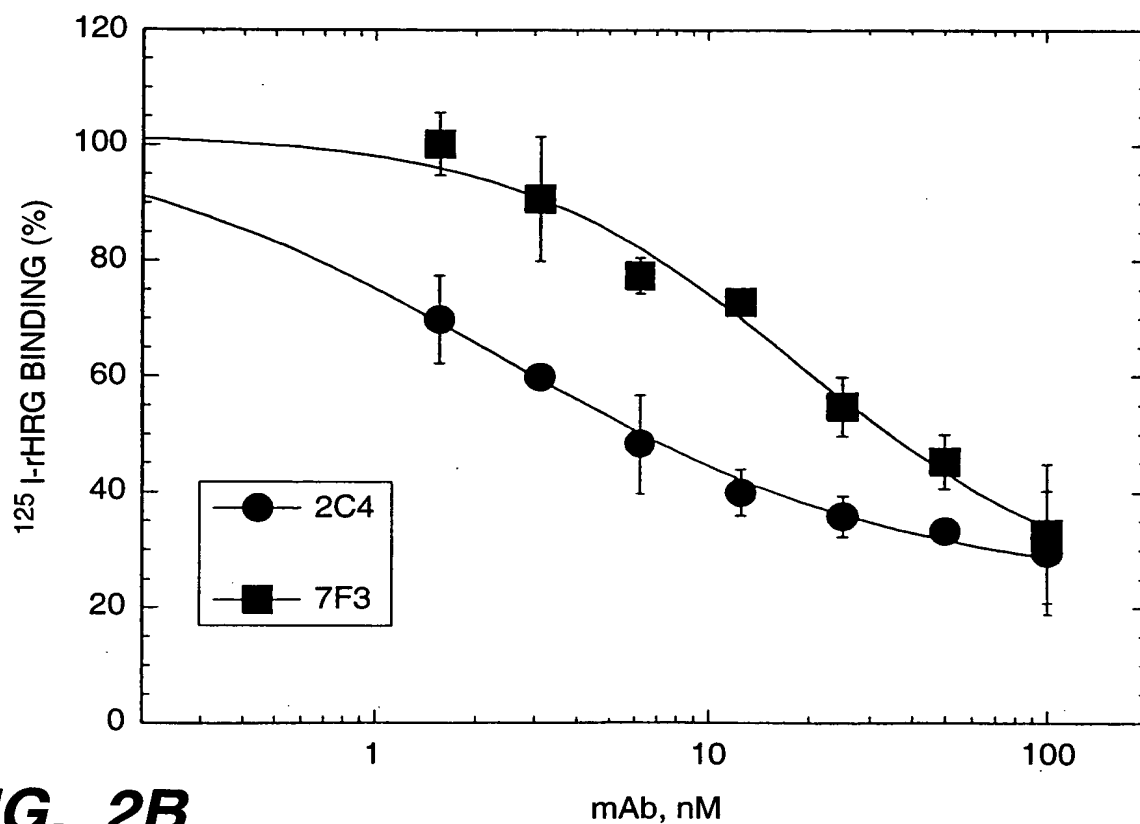


FIG. 2B

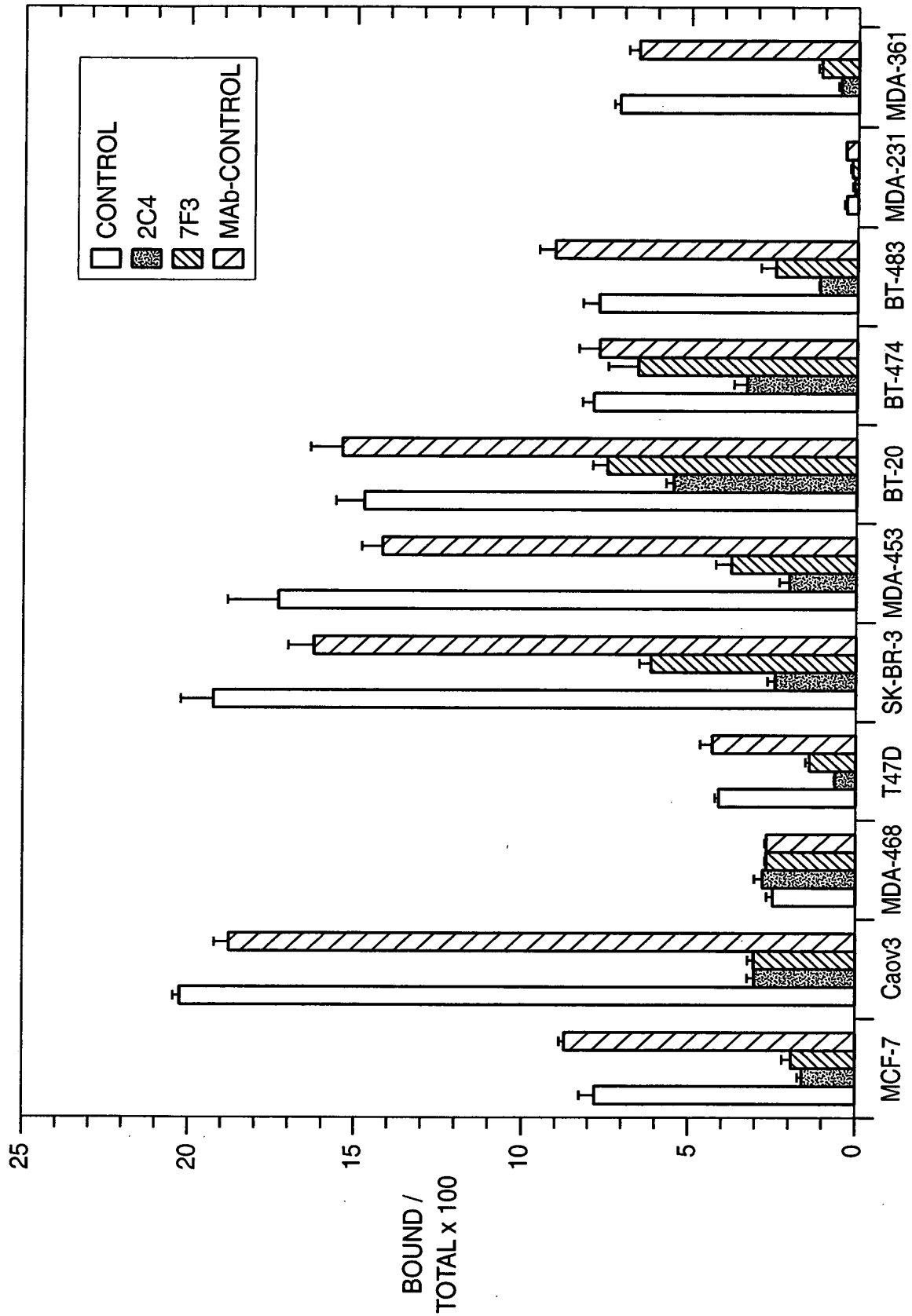


FIG.-3

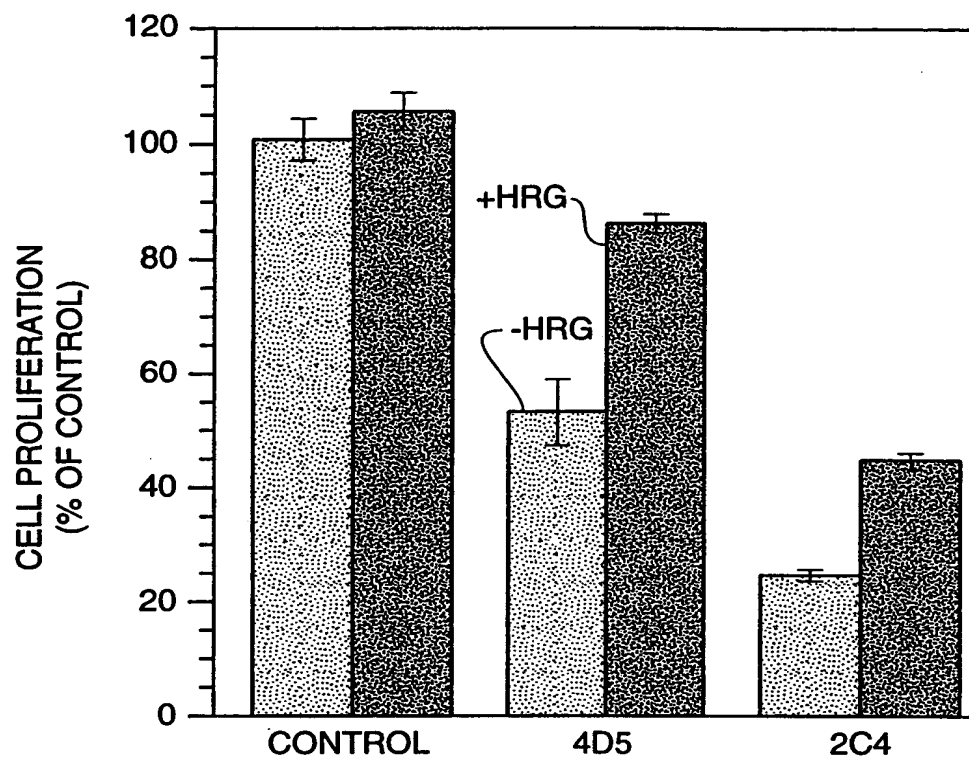


FIG. 4A

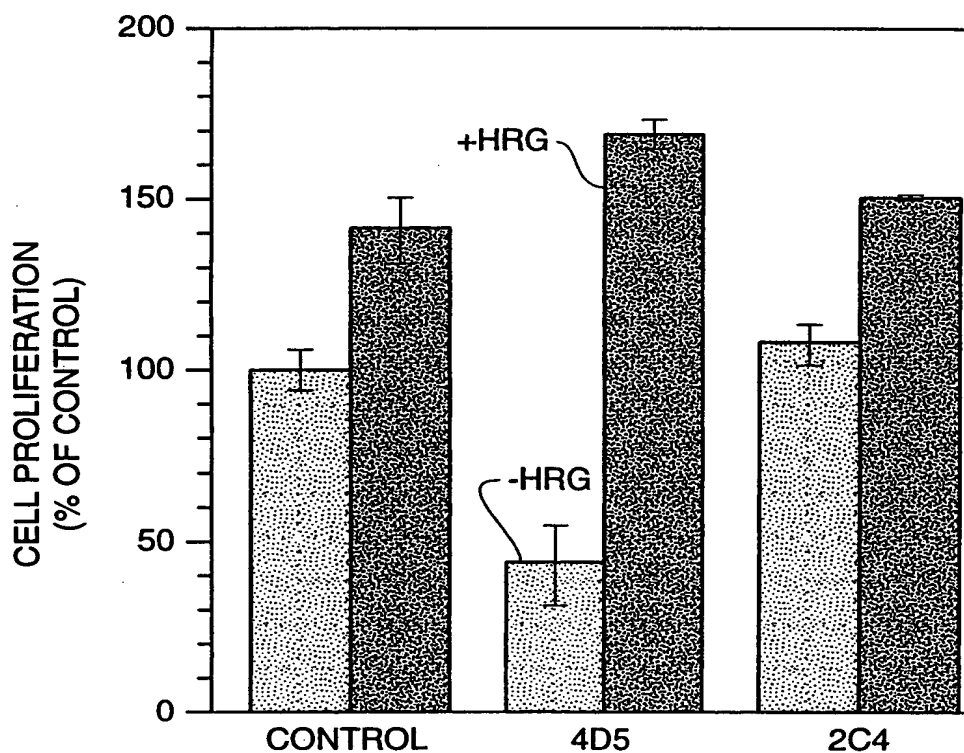
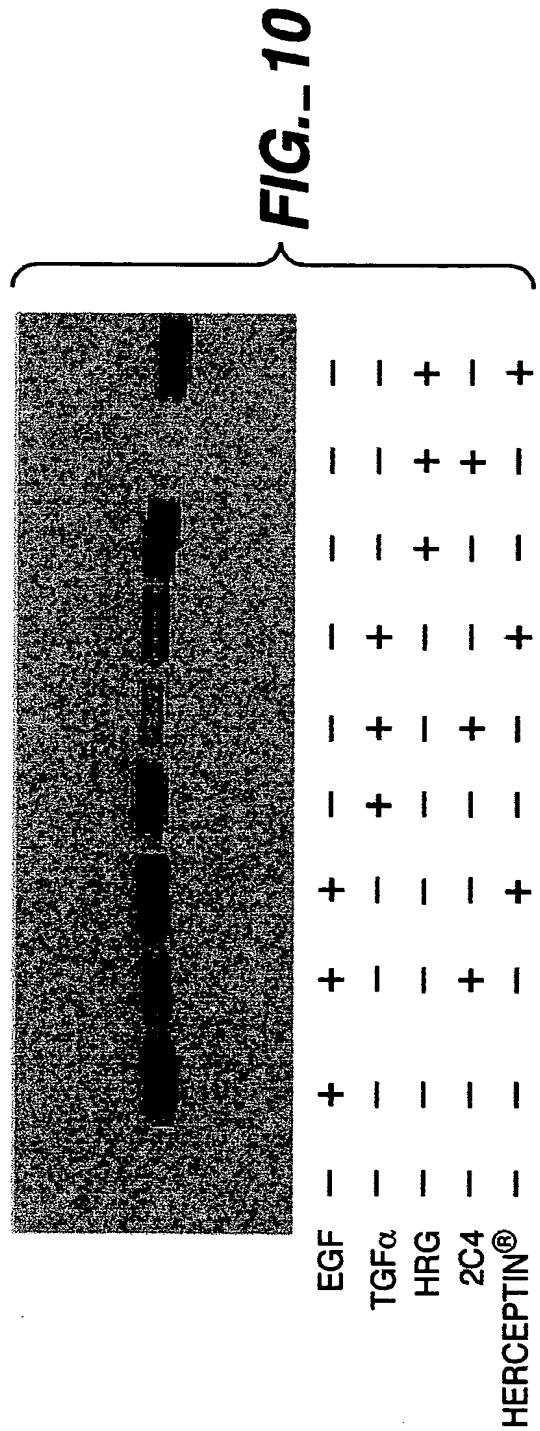
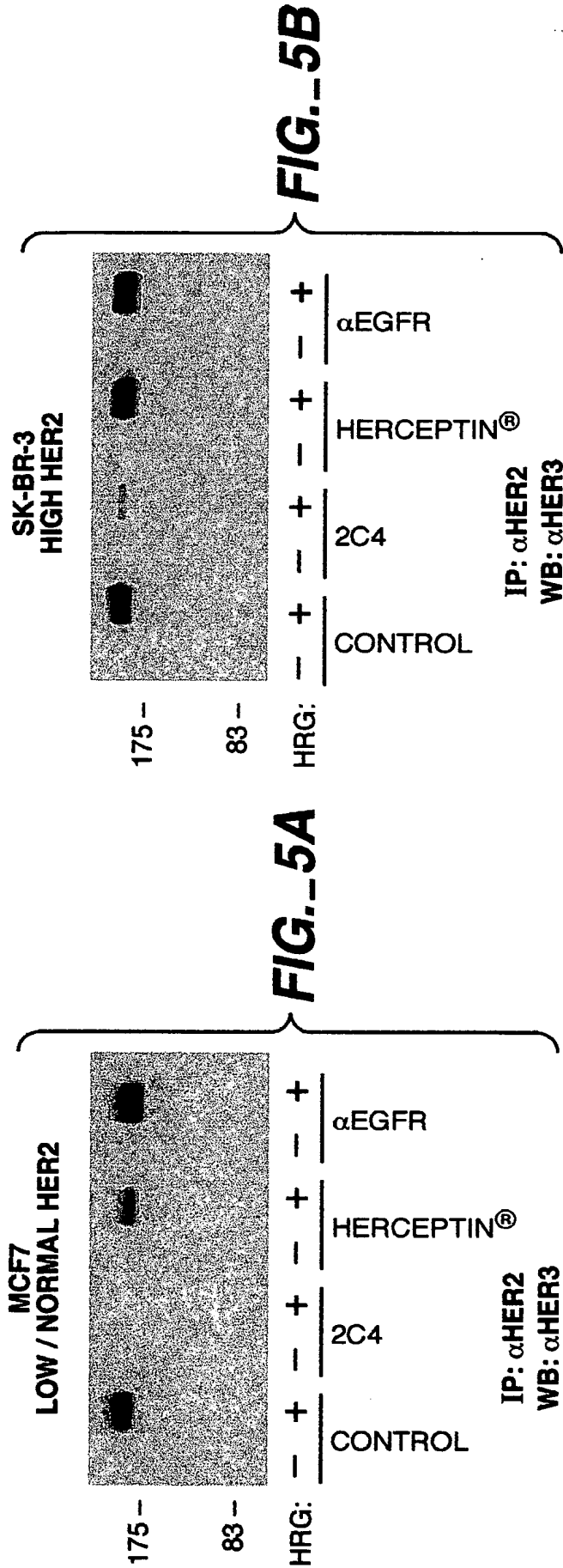


FIG. 4B



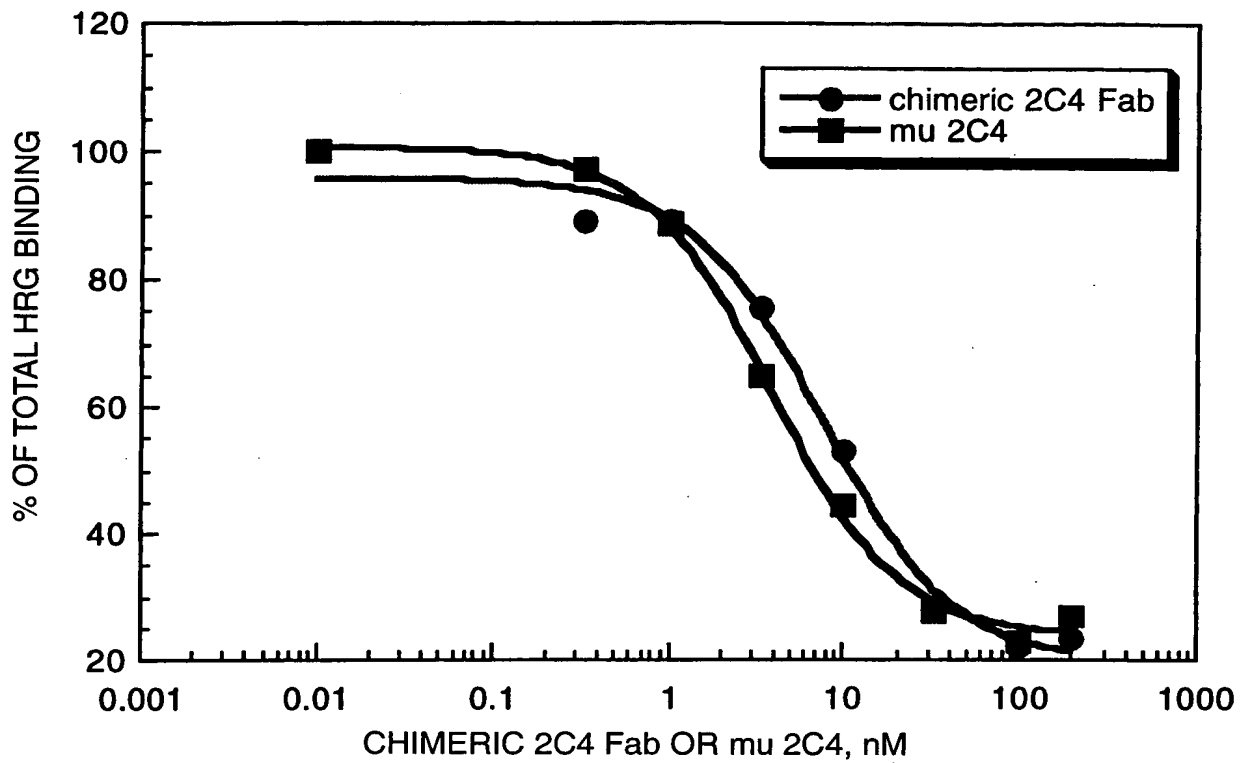


FIG._6A

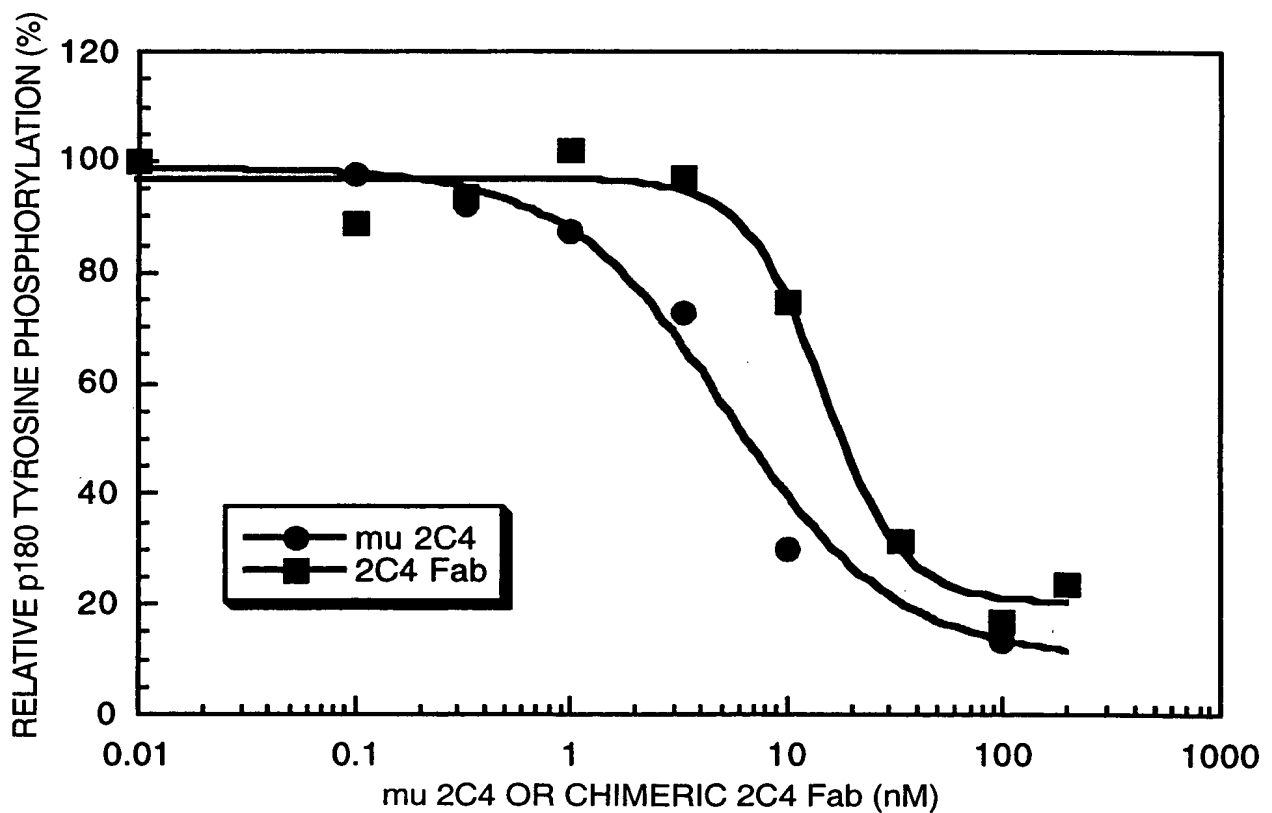


FIG._6B

VARIABLE LIGHT

| | | | | |
|--------|-------------------------|--------------------------|-------|----|
| | 10 | 20 | 30 | 40 |
| 2C4 | DTVMTQSHKIMSTSVGDRVSITC | [KASQDVSIGVA] | WYQQR | P |
| | ** ***** | * | | * |
| 574 | DIQMTQSPSSLSASVGDRVTITC | [KASQDVSIGVA] | WYQQK | P |
| | | * ** *** | | |
| hum κI | DIQMTQSPSSLSASVGDRVTITC | [RASQISNYLA] | WYQQK | P |
| | | | | |
| | 50 | 60 | 70 | 80 |
| 2C4 | GQSPKLLIY [SASYRYT] | GVPDRFTGSGSGTDFTFTISSVQA | | |
| | ** * | * | * | * |
| 574 | GKAPKLLIY [SASYRYT] | GVPSRFSGSGSGTDFTLTISLQ | | P |
| | | * ***** | | |
| hum κI | GKAPKLLIY [AASSLES] | GVPSRFSGSGSGTDFTLTISLQ | | P |
| | | | | |
| | 90 | 100 | | |
| 2C4 | EDLAVYYC [QQYYIYPYT] | FGGGTKLEIK (SEQ ID NO:1) | | |
| | * * | * | * | |
| 574 | EDFATYYC [QQYYIYPYT] | FGQGTKVEIK (SEQ ID NO:3) | | |
| | | *** * | | |
| hum κI | EDFATYYC [QQYNSLPWT] | FGQGTKVEIK (SEQ ID NO:5) | | |

FIG._7A

VARIABLE HEAVY

| | | | | |
|---------|--------------------------------|---------------------------|------------|--------------|
| | 10 | 20 | 30 | 40 |
| 2C4 | EVQLQQSGPELVKPGTSVKISCKAS | [GFTFTDYTMD] | WVKQS | |
| | ** ** * | * | | * |
| 574 | EVQLVESGGGLVQPGGSLRLS | CAAS [GFTFTDYTMD] | WVRQA | |
| | | *** * | | |
| hum III | EVQLVESGGGLVQPGGSLRLS | CAAS [GFTFSSYAMS] | WVRQA | |
| | | | | |
| | 50 a | 60 | 70 | 80 |
| 2C4 | HGKSLEWIG [DVNPNSGGSIYNQRFKG] | KASLTVD | RSSRIVYM | |
| | * * | * | *** * | ***** * |
| 574 | PGKGLEWVA [DVNPNSGGSIYNQRFKG] | RFTLSVDRSKNTLYL | | |
| | ***** * | * | * | * |
| hum III | PGKGLEWVA [VISGDGGSTYYADSVKG] | RFTISRDN | SKNTLYL | |
| | | | | |
| | abc 90 | 100ab | 110 | |
| 2C4 | ELRSLTFEDTAVYYCAR [NLGPSFYFDY] | WGQGTTLTVSS (SEQ ID NO:2) | | |
| | *** ** | | ** | |
| 574 | QMNSLRAEDTAVYYCAR [NLGPSFYFDY] | WGQGTTLTVSS (SEQ ID NO:4) | | |
| | | ***** | | |
| hum III | QMNSLRAEDTAVYYCAR [GRVGYSLYDY] | WGQGTTLTVSS (SEQ ID NO:6) | | |

FIG._7B

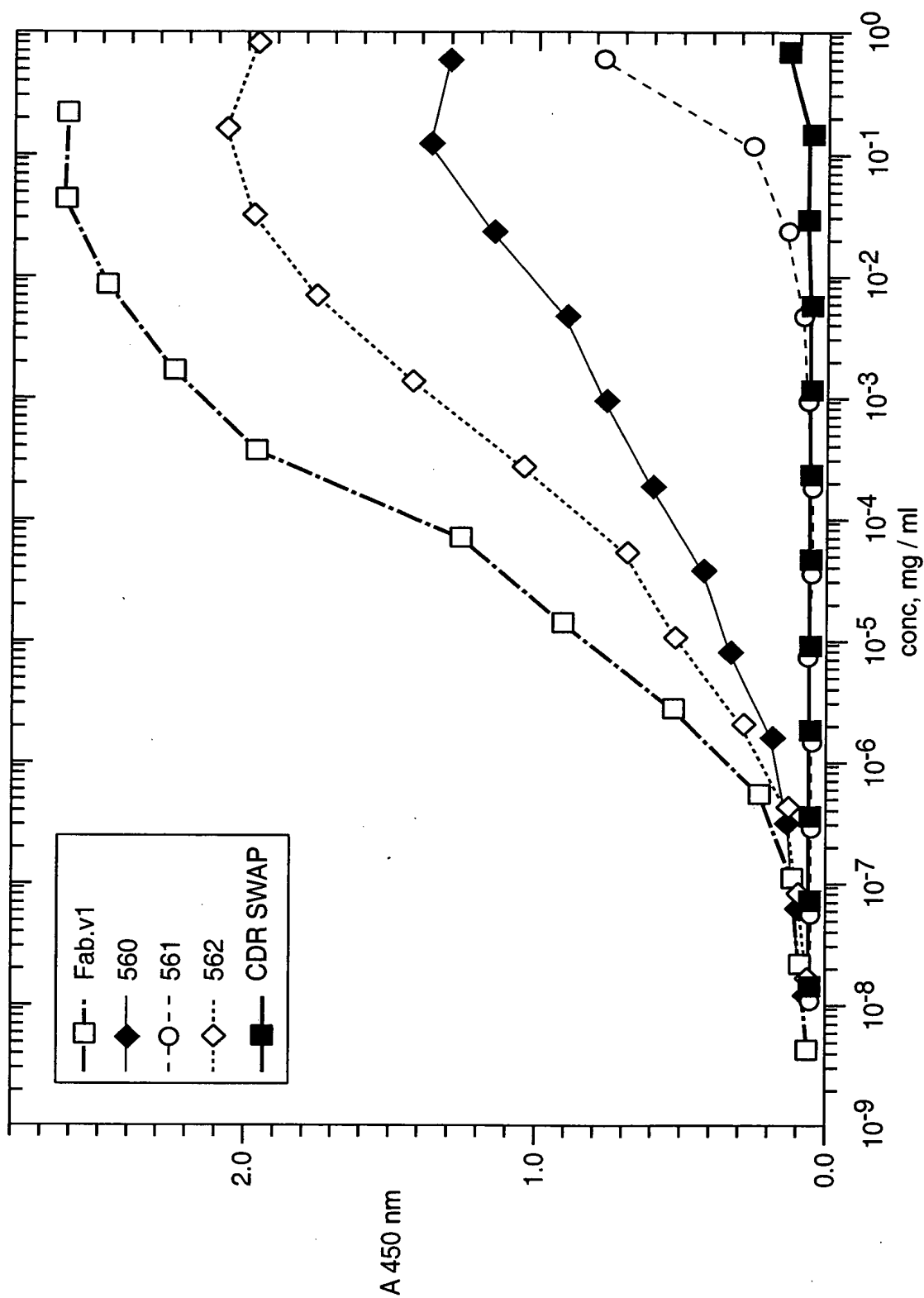


FIG._8A

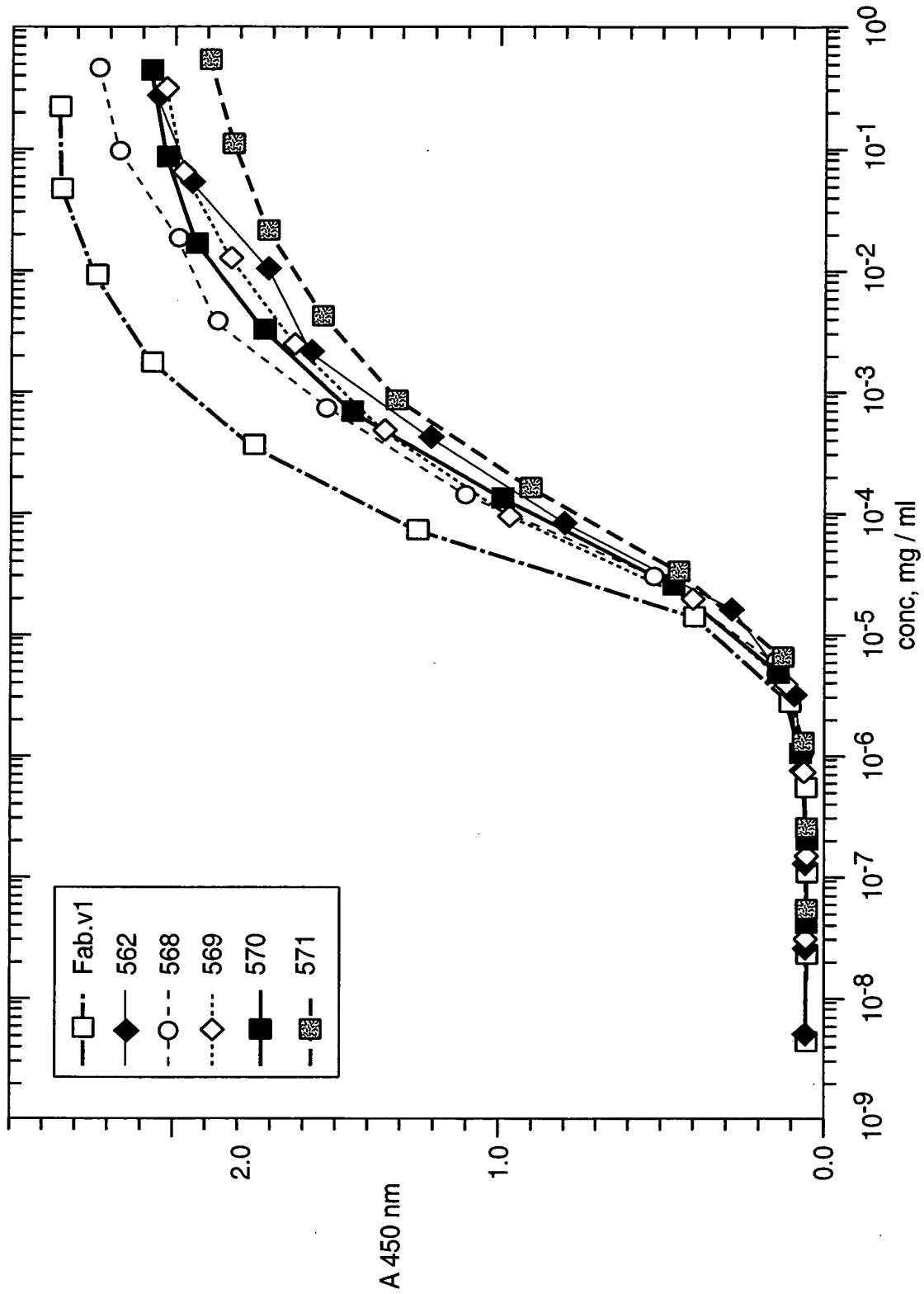


FIG. 8B

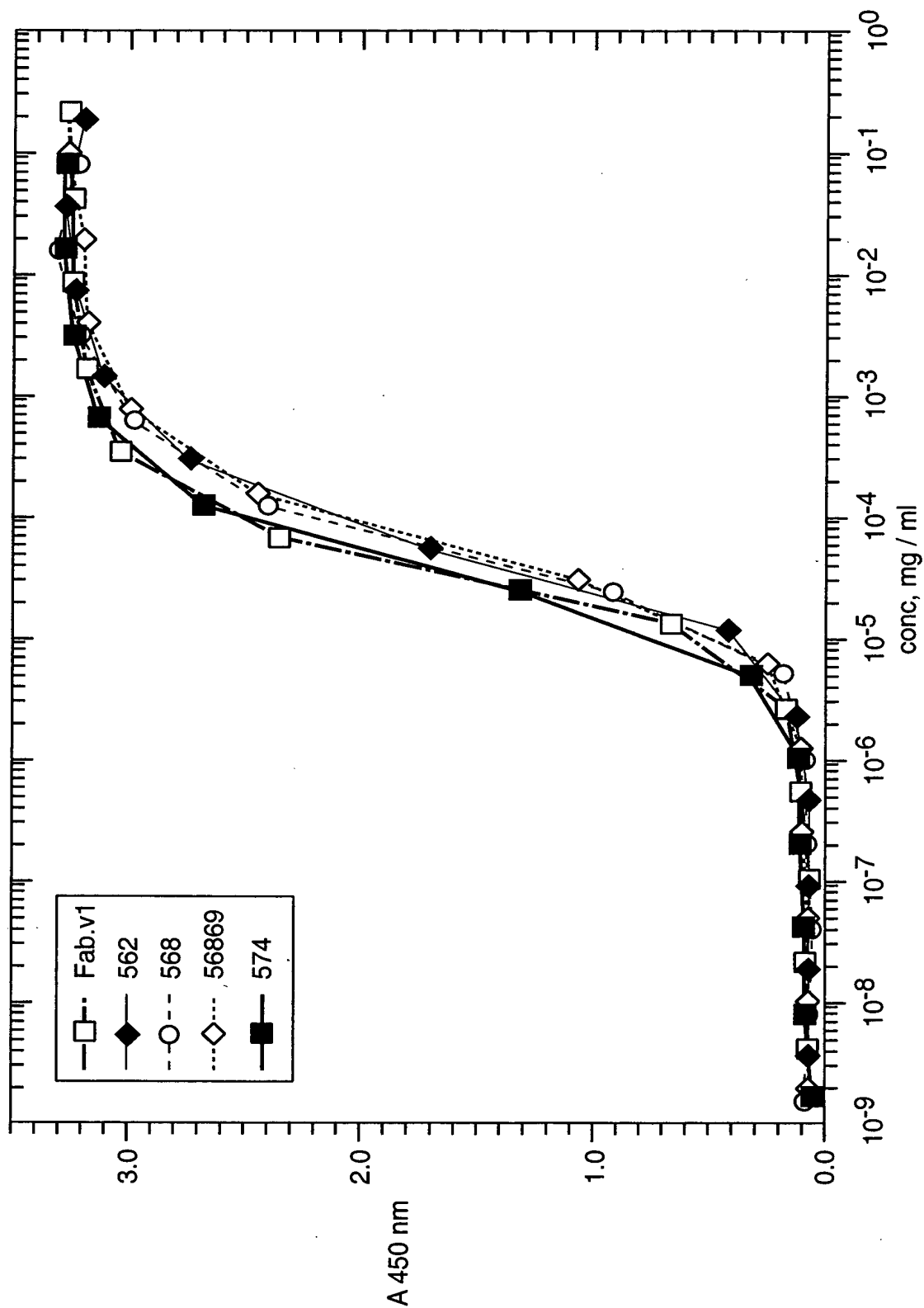


FIG._8C

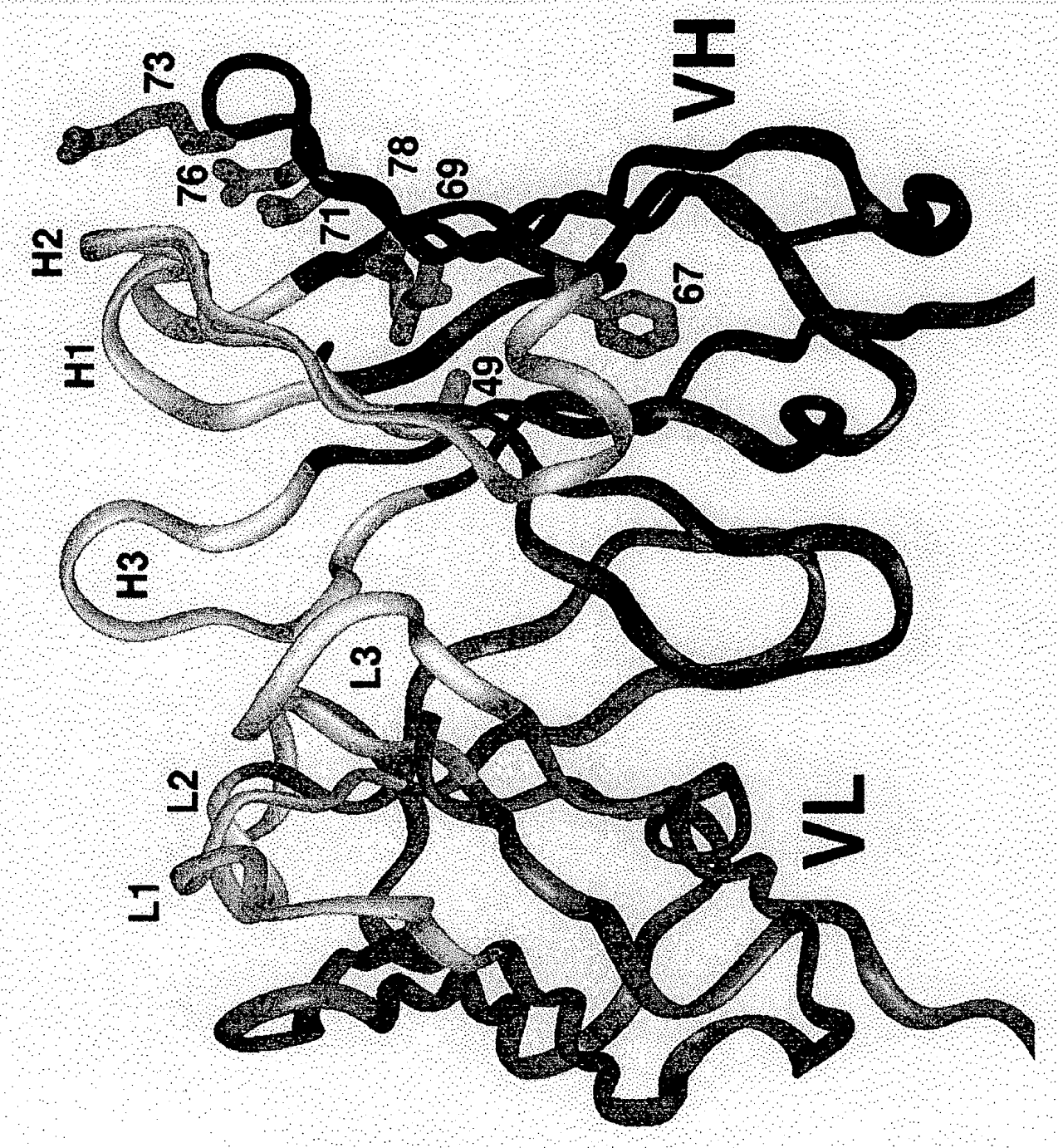


FIG.-9